09/970,453 updated Search Likok 9/19/05.

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(FILE 'HOME' ENTERED AT 09:47:13 ON 19 SEP 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT

	09:47:36 ON 19 SEP 2005
L1	0 S (MICROFLUIDIC?) AND (DETECTION ZONES)
L2	2 S (MULTIPLE DETECTION ZONES)
L3	2 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)
L4	4 S (PLURAL? DETECTION ZONES)
L5	4 DUPLICATE REMOVE L4 (0 DUPLICATES REMOVED)

(FILE 'HOME' ENTERED AT 09:47:13 ON 19 SEP 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT 09:47:36 ON 19 SEP 2005

- L1 0 S (MICROFLUIDIC?) AND (DETECTION ZONES)
- L2 2 S (MULTIPLE DETECTION ZONES)
- L3 · 2 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)
- L4 4 S (PLURAL? DETECTION ZONES)
- L5 4 DUPLICATE REMOVE L4 (0 DUPLICATES REMOVED)

ANSWER 4 OF 4 JAPIO (C) 2005 JPO on STN

AN 1990-272390 JAPIO

TI DETECTION OF MOVING OBJECT

IN SATO KAZUYUKI

PA NIPPON MINING CO LTD

PI JP 02272390 A 19901107 Heisei

AI JP 1989-95038 (JP01095038 Heisei) 19890414

PRAI JP 1989-95038 19890414

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1990

IC ICM G01V009-04

ICS G01J001-04; G08B013-191

AB PURPOSE: To surely and quickly detect a moving object by radially arranging plural detection zones, where even the outside of a virtual boundary line surrounding infrared sensors is

monitored, and plural detection zones, where

only the inside of the virtual boundary line is monitored, to constitute a detection area.

CONSTITUTION: A virtual boundary line A surrounding infrared sensors 1 and 2 attached in a prescribed position is set, and plural

detection zones where even the outside of the virtual

boundary line A is monitored and plural detection

zones where only the inside of the line A is monitored are radially arranged to constitute the detection area. When the moving object like a human body crosses the virtual boundary line A, detection signals are outputted from infrared sensors with a time difference. Thus, the moving body is surely and quickly detected whichever direction the moving object trespasses on the detection area from.

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ANSWER 20 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1978:624698 CAPLUS

DN 89:224698

ED Entered STN: 12 May 1984

- TI The conductivity of a weakly ionized flowing plasma in crossed electric and magnetic fields
- AU Gupta, B. K.; Sharma, R. P.; Kaushik, S. C.
- CS Dep. Phys., Indian Inst. Technol., New Delhi, India
- SO Journal of Physics D: Applied Physics (1978), 11(16), 2243-8 CODEN: JPAPBE; ISSN: 0022-3727
- DT Journal
- LA English
- CC 76-4 (Electric Phenomena)
- The conductivity of a weakly ionized flowing plasma subjected to weak static elec. and magnetic fields was investigated by using the Boltzmann transfer equation (BTE). The velocity dependence of collisions and the effect of flow velocity were taken into account by using an appropriate collision integral. The dependence of the transport coeffs. on Mach number scattering and Hall parameters was studied in the linear case. The transport coeffs. are almost independent of the Mach number in the case of velocity-independent collisions. In a neutral particle collision-dominated plasma the conductivity decreases with increasing Mach number; the converse is, however, true for an ionic collision-dominated plasma.
- ST cond weakly ionized plasma
- IT Plasma
 - (elec. conductivity of weakly-ionized flowing, in crossed elec. and magnetic fields)
- IT Electric conductivity and conduction
 - (of plasma of weakly-ionized flowing type, in crossed elec. and magnetic fields)

ANSWER 20 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1978:624698 CAPLUS

DN 89:224698

ED Entered STN: 12 May 1984

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- CS Dep. Phys., Indian Inst. Technol., New Delhi, India
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- DT Journal
- LA English
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- IT Electric conductivity and conduction
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```
ANSWER 13 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
     1990:84440 CAPLUS
     112:84440
     Entered STN: 03 Mar 1990
ED
     Beyond the two-fluid model: transition from linear behavior to a
ΤI
     velocity-independent force on a moving object in
     helium-3-B
     Fisher, S. N.; Guenault, A. M.; Kennedy, C. J.; Pickett, G. R.
ΑU
     Dep. Phys., Lancaster Univ., Lancaster, LA1 4YB, UK
CS
     Physical Review Letters (1989), 63(23), 2566-9
SO
     CODEN: PRLTAO; ISSN: 0031-9007
DT
     Journal
LΑ
     English
     65-2 (General Physical Chemistry)
CC
     A simple one-dimensional model was used to show that the existence of the
AB
     energy gap for excitations in an isotropic BCS superfluid leads to a
     strongly nonlinear mech. behavior of the liquid in the ballistic
     quasiparticle limit. The nonlinear damping of a vibrating wire in the
     B-phase of superfluid 3He below 200 µK is explained, both in its
     velocity dependence and magnitude. At modest velocities
     (v > kT/pF), the damping force on an object moving through the superfluid
     becomes independent of velocity, an unexpected result with several
     interesting implications.
     damping force superfluid helium 3 velocity
ST
     Zero, absolute
ΙT
        (damping force on object moving in superfluid helium-3 B-phase near,
        transition from linear behavior to velocity-
        independent)
ΙT
     Force
        (damping, on object moving in superfluid helium-3 B-phase near absolute
        zero, transition from linear behavior to velocity-
        independent)
     14762-55-1, Helium-3, properties
IT
     RL: PRP (Properties)
        (superfluid, transition from linear behavior to velocity-
```

independent damping force on moving object near absolute zero in

B-phase of)

```
ANSWER 13 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
     1990:84440 CAPLUS
AN
     112:84440
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     Entered STN: 03 Mar 1990
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     Beyond the two-fluid model: transition from linear behavior to a
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     Dep. Phys., Lancaster Univ., Lancaster, LA1 4YB, UK
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     Physical Review Letters (1989), 63(23), 2566-9
SO
     CODEN: PRLTAO; ISSN: 0031-9007
DT
     Journal
LΑ
     English
CC
     65-2 (General Physical Chemistry)
     A simple one-dimensional model was used to show that the existence of the
AΒ
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     (v > kT/pF), the damping force on an object moving through the superfluid
     becomes independent of velocity, an unexpected result with several
     interesting implications.
     damping force superfluid helium 3 velocity
ST
IT
     Zero; absolute
        (damping force on object moving in superfluid helium-3 B-phase near,
        transition from linear behavior to velocity-
        independent)
ΙT
     Force
        (damping, on object moving in superfluid helium-3 B-phase near absolute
        zero, transition from linear behavior to velocity-
        independent)
     14762-55-1, Helium-3, properties
ΙT
     RL: PRP (Properties)
        (superfluid, transition from linear behavior to velocity-
```

independent damping force on moving object near absolute zero in

B-phase of)

ANSWER 12 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN AN 1991:110154 CAPLUS 114:110154 DN Entered STN: 23 Mar 1991 ED The effect of a velocity-dependent charge-exchange TIkernel on neutral-atom transport in a half-space plasma: exact solution Prinja, A. K.; Williams, M. M. R. ΑU Chem. Nucl. Eng. Dep., Univ. New Mexico, Albuquerque, NM, 87131, USA CS Journal of Plasma Physics (1990), 44(2), 285-302 SO CODEN: JPLPBZ; ISSN: 0022-3778 DT Journal English LΑ 71-2 (Nuclear Technology) CC A sym. factorization of the velocity-dependent AB charge-exchange kernel (the so-called separable-kernel model) is used in the Boltzmann equation for neutral atoms to obtain an exact solution for a half-space plasma by the Wiener-Hopf method. This work generalizes earlier work employing constant, velocity-independent charge-exchange interactions to the case of an arbitrary velocity dependence of the Maxwellian averaged charge-angle distribution of escaping neutrals and the total charge-exchange rate in the half-space are shown to be significant. It is also shown how the Wiener-Hopf method can be applied to such problems with a realistic Maxwellian plasma background, without first approximating the ion distribution. neutral atom transport half space plasma STIT (neutral-atom transport in half-space, effect of velocity-

dependent charge-exchange kernel on)
Nuclear fusion reactor fuels and plasmas

IT Nuclear fusion reactor fuels and plasmas (neutron-atom transport in half-space plasma in relation to

ANSWER 12 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:110154 CAPLUS

DN 114:110154

ED Entered STN: 23 Mar 1991

TI The effect of a **velocity-dependent** charge-exchange kernel on neutral-atom transport in a half-space plasma: exact solution

AU Prinja, A. K.; Williams, M. M. R.

CS Chem. Nucl. Eng. Dep., Univ. New Mexico, Albuquerque, NM, 87131, USA

SO Journal of Plasma Physics (1990), 44(2), 285-302 CODEN: JPLPBZ; ISSN: 0022-3778

DT Journal

LA English

CC 71-2 (Nuclear Technology)

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ST neutral atom transport half space plasma

IT Plasma

(neutral-atom transport in half-space, effect of velocitydependent charge-exchange kernel on)

IT Nuclear fusion reactor fuels and plasmas

(neutron-atom transport in half-space plasma in relation to

```
ANSWER 11 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
     1993:134855 CAPLUS
AN
     118:134855
DN
     Entered STN: 30 Mar 1993
ED
     Influence of molecular rotation on light-induced drift of fluoromethane
TI
     Van der Meer, G. J.; Broers, B.; Chapovsky, P. L.; Hermans, L. J. F.
ΑU
     Huygens Lab., Leiden Univ., Leiden, 2300, Neth.
CS
     Journal of Physics B: Atomic, Molecular and Optical Physics (1992),
SO
     25(24), 5359-70
     CODEN: JPAPEH; ISSN: 0953-4075
DT
     Journal
     English
LΑ
     73-2 (Optical, Electron, and Mass Spectroscopy and Other Related
CC
     Properties)
     Section cross-reference(s): 65
     Exptl. results on light-induced drift of (ro)vibrationally excited CH3F
AB
     immersed in Kr or CH3Cl buffer gases are presented. For pure vibrational
     excitation, the relative change in collision rate is essentially
     velocity independent. For rovibrational excitation,
     this quantity can have a significant velocity dependence
     , as can be concluded from the detuning behavior of light-induced drift
     for two transitions of CH3F immersed in Kr. In combination with earlier
     observations of anomalous light-induced drift in C2H4, these results
     demonstrate that a sizable velocity dependence of the
     change in collision rate caused by rovibrational excitation is a general
     feature for mol. systems. While the transport collision rate generally
     increased with vibrational quantum number, the data suggest that it decreases with increasing rotational quantum number The data for CH3F in CH3Cl
     indicate that rotational-state-changing collisions are accompanied by a
     significant velocity change.
     fluoromethane light induced drift; krypton fluoromethane light induced
ST
     drift; chloromethane fluoromethane light induced drift; rotation
     fluoromethane light induced drift
ΙT
     Laser radiation
     Light
        (drift induced by, of fluoromethane in buffer gases, mol. rotation
        effect on)
     Molecular rotation
IT
        (light induced drift of fluoromethane in buffer gases in relation to)
ΙT
     Energy level excitation
        (rotational-vibrational, light induced drift of fluoromethane in buffer
        gases in relation to)
     Energy level excitation
IT
        (vibrational, light induced drift of fluoromethane in buffer gases in
        relation to)
     74-87-3, Chloromethane, properties 7439-90-9, Krypton, properties
IT
     RL: PRP (Properties)
        (light induced drift of fluoromethane immersed in, mol. rotation effect
        on)
     593-53-3, Fluoromethane
ΙT
```

(light induced drift of, in buffer gases, mol. rotation effec

RL: PRP (Properties)

```
ANSWER 11 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
     1993:134855 CAPLUS
AN
     118:134855
DN
     Entered STN: 30 Mar 1993
ED
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     25(24), 5359-70
     CODEN: JPAPEH; ISSN: 0953-4075
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     Journal
     English
LΑ
     73-2 (Optical, Electron, and Mass Spectroscopy and Other Related
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     significant velocity change.
     fluoromethane light induced drift; krypton fluoromethane light induced
ST
     drift; chloromethane fluoromethane light induced drift; rotation
     fluoromethane light induced drift
IT
     Laser radiation ·
     Light
        (drift induced by, of fluoromethane in buffer gases, mol. rotation
        effect on)
     Molecular rotation
IT
        (light induced drift of fluoromethane in buffer gases in relation to)
IT
     Energy level excitation
        (rotational-vibrational, light induced drift of fluoromethane in buffer
        gases in relation to)
ΙT
     Energy level excitation
        (vibrational, light induced drift of fluoromethane in buffer gases in
        relation to)
     74-87-3, Chloromethane, properties 7439-90-9, Krypton, properties
ΙT
     RL: PRP (Properties)
        (light induced drift of fluoromethane immersed in, mol. rotation effect
        on)
IT
     593-53-3, Fluoromethane
     RL: PRP (Properties)
```

(light induced drift of, in buffer gases, mol. rotation effec

09/970453 updated Search Lycook 9/19/05

d his

(FILE 'HOME' ENTERED AT 10:09:55 ON 19 SEP 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT 10:10:20 ON 19 SEP 2005

0 S (FLUID FLOW) AND (DETECTION ZONES)

12 S (DETECTION ZONES) AND FLOW?

L3 12 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=>

L1

L2

(FILE 'HOME' ENTERED AT 10:09:55 ON 19 SEP 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT 10:10:20 ON 19 SEP 2005

- 0 S (FLUID FLOW) AND (DETECTION ZONES)
- L2 12 S (DETECTION ZONES) AND FLOW?
- L3 12 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=>

Ll

ANSWER 9 OF 12 JAPIO (C) 2005 JPO on STN

- AN 1995-049301 JAPIO
- TI PARTICLE ANALYZER
- IN KOSAKA TOKIHIRO
- PA TOA MEDICAL ELECTRONICS CO LTD
- PI JP 07049301 A 19950221 Heisei
- AI JP 1993-192532 (JP05192532 Heisei) 19930803
- PRAI JP 1993-192532 19930803
- SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1995
- IC ICM G01N015-14
 - ICS G01N021-53

AB PURPOSE: To achieve higher image resolutions of particles with a line sensor by expose partial images separately at different points of moving particles to be inspected by using a plurality of line sensors.

CONSTITUTION: Light of an emission lamp 10 is made to radiate long and

CONSTITUTION: Light of an emission lamp 10 is made to radiate long as finely in a direction of crossing a sample **flow** 18.

Detection Zones of a plurality of line sensors (one

dimensional CCD image sensor) A1 and A2 are set to match this irradiation zone. Light passing through the **detection zones** is

divided into two with a halfmirror 22 to form an image on photodetecting surfaces of the sensors A1 and A2 and partial images of particles are exposed separately to the photodetecting surfaces. The exposure periods in synchronization of the sensors A1 and A2 limited to the first half of a scanning cycle for the one and to the second half thereof for the other.

The detection zones of the sensors A1 and A2 are

limited to a range of a half cycle portion shifted by time corresponding to the half cycle portion. Thus, the zone to be detected by one scanning of the sensors Al and A2 is not duplicated so much to be made thinner in width to about a half thereby achieving higher image resolutions in a direction of the **flow** of the particles.

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ANSWER 9 OF 12 JAPIO (C) 2005 JPO on STN

AN 1995-049301 JAPIO

TI PARTICLE ANALYZER

IN KOSAKA TOKIHIRO

PA TOA MEDICAL ELECTRONICS CO LTD

PI JP 07049301 A 19950221 Heisei

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ANSWER 18 OF 38 JAPIO (C) 2005 JPO on STN

AN 1992-348307 JAPIO

TI FOCUS DETECTOR

IN SENSUI TAKAYUKI

PA ASAHI OPTICAL CO LTD

PI JP 04348307 A 19921203 Heisei

AI JP 1991-191344 (JP03191344 Heisei) 19910425

PRAI JP 1991-191344 19910425

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1992

IC ICM G02B007-34

AB PURPOSE: To provide a focus detector which enables the arrangement relation of **detection zones** on an expected focal plane and the arrangement relation of line sensors on an image reformation plane to freely be combined.

CONSTITUTION: The focus detector is provided with detection zones 11-13 set on the expected focal plane 10, an image re-formation optical system which deflects images formed in the detection zones and divides and re-images them, and the sensor parts 41-43 which are arranged at the image re-formation positions by the image re-formation optical system corresponding to the detection zones and has the relation different from the arrangement relation of the detection zones on the expected focal plane 10.

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ANSWER 18 OF 38 JAPIO (C) 2005 JPO on STN

AN 1992-348307 JAPIO

TI FOCUS DETECTOR

IN SENSUI TAKAYUKI

PA ASAHI OPTICAL CO LTD

PI JP 04348307 A 19921203 Heisei

AI JP 1991-191344 (JP03191344 Heisei) 19910425

PRAI JP 1991-191344 19910425

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ANSWER 13 OF 38 JAPIO (C) 2005 JPO on STN

- AN 1995-049301 JAPIO
- TI PARTICLE ANALYZER
- IN KOSAKA TOKIHIRO
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- PI JP 07049301 A 19950221 Heisei
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(FILE 'HOME' ENTERED AT 12:51:50 ON 19 SEP 2005)

FILE 'BIOSIS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT 12:52:18 ON 19 SEP 2005

- L1 49 S (DETECTION ZONES)
- L2 38 S L1 AND PD<2002
- L3 38 DUPLICATE REMOVE L2 (0 DUPLICATES REMOVED)

=>

(FILE 'HOME' ENTERED AT 12:51:50 ON 19 SEP 2005)

FILE 'BIOSIS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT 12:52:18 ON 19 SEP 2005

L1 49 S (DETECTION ZONES)

38 S L1 AND PD<2002

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L2